

STATUS OF THE CLAIMS

Claims 1-42 were originally filed in this patent application. In the pending office action, claims 6-12 and 25-42 were rejected under 35 U.S.C. §101. Claims 1-42 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,802,062 to Oyamada *et al.* (hereinafter “Oyamada”). No claim was allowed. In this amendment, claims 26-27, 33-34, and 41-42 have been cancelled, and claims 6, 9, 12, 25, 32, and 40 have been amended. Claims 1-25, 28-32, and 35-40 are currently pending.

REMARKS

Rejection of claims 6-12 and 25-42 under 35 U.S.C. §101

The examiner rejected claims 6-12 and 25-42 under 35 U.S.C. §101 as being allegedly directed to non-statutory subject matter. Claims 26-27, 33-34, and 41-42 have been cancelled herein, and therefore need not be addressed. Each of the independent claims, namely claims 6, 12, 25, 32 and 40 have been amended herein to overcome the examiner's rejections under 35 U.S.C. §101.

Rejection of claims 1-42 under 35 U.S.C. §102(e)

The examiner rejected claims 1-42 under 35 U.S.C. §102(e) as being anticipated by Oyamada. Claims 26-27, 33-34, and 41-42 have been cancelled herein, and therefore, need not be addressed. Each of the remaining claims is addressed below.

Claims 1, 13, and 25

Claim 1 recites:

a pause/resume mechanism residing in the memory and executed by the at least one processor, the pause/resume mechanism sending a pause message when a first operating system needs to be restarted to at least one other operating system that is using a shared resource that is also used by the first operating system, the pause/resume mechanism sending a resume message to the at least one other operating system after the first operating system is restarted.

Claims 13 and 25 contain limitations similar to those of claim 1. The examiner claims that Oyamada teaches all of the limitations of claims 1, 13, and 25. Oyamada does not teach “sending a pause message **when a first operating system needs to be restarted**” as claimed. Oyamada teaches “mov[ing] a virtual machine operating in a virtual machine system on a given real machine to a virtual machine system on another real machine”.

Abstract of Oyamada. The limitations in the claims thus differ in significant ways from the teachings of Oyamada. The suspend operation in Oyamada is performed when a virtual machine needs to be moved, not when an operating system needs to be restarted as recited in claim 1. The pause message in claim 1 is sent to at least one other operating system that is using a shared resource that is also used by the first operating system. Nowhere does Oyamada teach or suggest sending a pause message to an operating system that is using a shared resource that is also used by the first operating system that needs to be restarted.

Claim 1 also recites “sending a resume message to the at least one other operating system after the first operating system is restarted.” We see from this language that the resume message in claim 1 is sent to resume the at least one other operating system only after the first operating system is restarted. Oyamada does not teach or suggest sending a resume message to an operating system after a different operating system has restarted. For the reasons given above, claims 1, 13, and 25 are allowable over Oyamada. Applicants respectfully request reconsideration of the examiner’s rejection of claims 1, 13, and 25 under 35 U.S.C. §102(e).

Claims 6, 18, and 32

The examiner lumped the rejection of claims 6, 18, and 32 with claims 1, 13, and 25 which are allowable for the reasons given above, and are therefore allowable for the same reasons. In addition, claims 6, 18, and 32 contain the limitation, “a first operating system residing in a memory, the first operating system owning a shared resource; a second operating system residing in the memory, the second operating system using the shared resource...” which is not taught by Oyamada. The examiner does not address the limitation “a first operating system residing in a memory, the first operating system owning a shared resource; a second operating system residing in the memory, the second operating system using the shared resource...”. As a result, the examiner has failed to

establish a prima facie case of anticipation for claims 6, 18 and 32 under 35 U.S.C. §102(e).

Claim 6 recites two operating systems residing in the same memory, with the pause/resume mechanism sending a pause message to the second operating system when the first operating system needs to be restarted, and sending a resume message to the second operating system after the first operating system is restarted. Nowhere does Oyamada teach or suggest multiple operating systems in the same memory in a computer system, where a pause message is sent to the second operating system when the first operating system needs to be restarted. Claims 18 and 32 recite similar limitations as claim 6. For the many reasons given above, claims 6, 18, and 32 are allowable over Oyamada, and applicants respectfully request reconsideration of the examiner's rejection of claims 6, 18, and 32 under 35 U.S.C. §102(e).

Claims 12, 24, and 40

The examiner lumped the rejection of claims 12, 24, and 40 with claims 1, 13, and 25 which are allowable for the reasons given above, and are therefore allowable for the same reasons. In addition, claims 12 and 40 recite:

... a pause/resume mechanism that sends a pause message to the second operating system when the first operating system needs to be restarted, that receives a pause complete message from the second operating system to indicate the second operating system has completed pending accesses to the shared resource, that sends a disconnect message to the second operating system before the first operating system is restarted, that sends a connect message to the second operating system after the first operating system is restarted to inform the second operating system that the first operating system has been restarted, and that sends a resume message to the second operating system after the first operating system is restarted to indicate to the second operating system that the first operating system is ready to resume sharing the shared resource with the second operating system.

Claim 24 includes similar limitations to claims 12 and 40. In the rejection, the examiner has addressed none of the following limitations: receiving a pause complete message from the second operating system to indicate the second operating system has completed pending accesses to the shared resource, sending a disconnect message to the second operating system before the first operating system is restarted, sending a connect message to the second operating system after the first operating system is restarted to inform the second operating system that the first operating system has been restarted, and sending a resume message to the second operating system after the first operating system is restarted to indicate to the second operating system that the first operating system is ready to resume sharing the shared resource with the second operating system. Because the examiner has not addressed any of these limitations listed above in the rejection of any of claims 12, 24 and 40, the examiner has failed to establish a prima facie case of anticipation for claims 12, 24 and 40 under 35 U.S.C. §102(e). Because the examiner has not properly addressed all of the limitations in claims 12, 24 and 40, applicants respectfully assert that the next office action, if any, should be non-final.

Claims 2-5, 7-11, 14-17, 19-23, 28-31, and 35-39

Claims 2-5 depend on claim 1 which is allowable for the reasons given above. Claims 7-11 depend on claim 6 which is allowable for the reasons given above. Claims 14-17 depend on claim 13 which is allowable for the reasons given above. Claims 19-23 depend on claim 18 which is allowable for the reasons given above. Claims 28-31 depend on claim 25 which is allowable for the reasons given above. Claims 35-39 depend on claim 32 which is allowable for the reasons given above. As a result each of claims 2-5, 7-11, 14-17, 19-23, 28-31, and 35-39 are allowable as depending on allowable independent claims. Applicants respectfully request reconsideration of the examiner's rejection of claims 2-5, 7-11, 14-17, 19-23, 28-31, and 35-39 under 35 U.S.C. §102(e).

Conclusion

In summary, none of the cited prior art, either alone or in combination, teach, support, or suggest the unique combination of features in applicants' claims presently on file. Therefore, applicants respectfully assert that all of applicants' claims are allowable. Such allowance at an early date is respectfully requested. The Examiner is invited to telephone the undersigned if this would in any way advance the prosecution of this case.

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Respectfully submitted,

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